

varieties included in the list, belonging to nearly as many separate genera, all but eleven being described here for the first time. Ample indexes and a map complete the volume, a well bound, duodecimo of 194 pages.

J. C. ARTHUR

## FIELD TRIPS OF THE CLUB

### COLUMBUS DAY WEEK-END IN THE CATSKILLS

Ten members of the Torrey Botanical Club enjoyed the Columbus Day week end in the northeastern Catskills, with headquarters at the Hotel Bellevue, at Haines Falls. Transportation was wholly by automobile, in cars provided by Mr. Anderson, Miss Griffin, Mr. Highton and the leader. This gave the party great flexibility of range, and if motor travel could more generally be organized through the cooperation of members who could provide cars, it would give the club excursions a much wider variety of regions for field study, and reduce transportation costs materially. This idea has occurred to me as a result of experience and reports on several excursions of the 1929 season, notably those at Branchville, N. J., at Spotswood, led by Prof. Chrysler; and to Spruce Pond, where Mr. Anderson transported most of the party in his car.

Most of the party left New York City and Newark, N. J., late Friday afternoon, and took the back route, via Suffern, Central Valley, Newburgh (the west end of the city), Modena, New Paltz, Kingston, Saugerties and the Rip Van Winkle Trail, to Haines Falls, arriving about 10 p. m., in time for a good night's sleep. This route from Newburgh to Kingston was chosen because the main river route, 9-W, is badly obstructed by new work.

On Saturday morning, the cars took the party quickly around into Plaat Clove where the Devil's Kitchen, the two gorges through which Plattekill Creek drops off the mountain front, was explored, and where Dr. A. J. Grout, our moss expert found much to interest him. After luncheon, most of the party climbed over High Peak, 3650 feet high, and descended past Round Top and out over Clum Hill to Tannersville, thence back to Haines Falls. The climb up the south side of High Peak over a new trail recently marked by members of the

Touristen Verein die Naturfreunde, (the Nature Friends), who have a camp on the slope; proved to be steep and "sporty" in places, with steeply slanting ledges, narrow crevices and overhanging cliffs. The summit is clothed with dense fir and spruce. A log observatory raises one above the trees and gives a full circle view of the entire Catskills and the Hudson Valley. The descent to Tannersville was easy, through changing zones of fir and spruce, yellow birch and mountain maple, beech and finally open pastures with sugar maple and hay-scented fern.

In trees and shrubs and herbaceous flowering plants, one rarely finds anything uncommon in the Catskills. There is not so much variety of species as in the Highlands of the Hudson. A limited number of phanerogamous species appears to have adjusted itself to the altitude, soil and moisture conditions and the association seems rather exclusive. One finds, above 3000 feet, northern species such as Goldthread, Twisted Stalk, Twin-flower and Bunchberry, but there are no alpine plants such as *Sibbaldiopsis* and *Arenaria* which might be looked for at 3500 feet, and are found at lower altitudes in the Taconics, 40 miles east. The dense forest cover on the Catskill sandstone had evidently killed off any alpine species, which are found on the bare Taconics, of more ancient schists. Several species of *Lycopodium* were found, including *annotinum*, *lucidulum*, *clavatum*, *obscurum* and *complanatum*.

On Sunday morning the party, now numbering a dozen, and with another car, that of Miss Griffin, who had been calling on Dr. Gunderson, at Maplecrest, motored leisurely homeward. A stop was made in Stony Clove, where Dr. Grout collected several mosses; and another at the Olive Bridge Dam, on Ashokan Reservoir, to view the aerator and the mountain panorama. The rest of the route was via New Paltz, Newburgh and Bear Mountain.

RAYMOND H. TORREY

#### FIELD TRIP OF NOVEMBER 9

Seven members of the club met at White Plains for a trip through the woods near Silver Lake. A search was made for wild flowers of which twenty three species were found, all of them occasional blossoms that had persisted far beyond the

usual flowering time. The flowers found were five species of *Aster* (*cordifolius*, *ericoides*, *longifolius villicaulis*, *multiflorus* and *tardiflorus*), five golden-rods (*Solidago bicolor*, *caesia*, *juncea*, *latifolia* and *rugosa*), common daisy, dandelion, fleabane (*Erigeron annuus*), yarrow, pepper grass (*Lepidium virginicum*), red and alsike clovers, Queen Ann's lace, buttercup, Deptford pink, self heal, rocket (*Hesperis Matronalis*), and witch hazel. Most of the witch hazels had finished blossoming but a few of the shrubs were well covered with flowers. On all of them the seeds had been discharged from the fruits. Many other wild seeds and fruits were noted, one new to several of the party was the blue cohosh (*Caulophyllum thalictroides*) which was abundant on one hillside.

GEORGE T. HASTINGS

#### DOUGLASTON TO HOLLIS, NOVEMBER 16

Twenty-three members of the Torrey Botanical Club, New York Microscopical Club and guests enjoyed a brilliant fall afternoon, in a ramble across the hills and hollows and among the kettle hole depressions and ponds of the terminal moraine of the Glacial Period, in Queens Borough, Between Douglaston and Hollis, on Saturday, Nov. 16. The route was via Alley Pond, across the moraine to its front north of Creedmoor, then westward along the front to Hollis.

The water in many of the kettle hole ponds had evaporated in the summer's drought, and much of the water vegetation which is so interesting in spring and early summer was stranded on the dry bottoms, but still persistent in exsiccated forms. In the well known Potamogeton Pond, north of Queens Village, *Potamogeton natans* was prostrate on the wet turf and hard to find, but *Riccia natans*, notable in its floating state when the kettle hole is watered, was still plentiful on the soil. *Peltandra virginica* and *Isnardia palustris* were also stranded, but evidently not worried at all, sure that the water would be back again in the spring.

In the examination of a dozen or more of the kettle hole ponds, along the eastern edge of the Queens woods close to the Nassau County line, from Alley Pond toward Creedmoor, and westward just back of the outer slope of the moraine past

Bellaire and Queens, it was interesting to see that certain plants seem to have established themselves in one or another of the ponds, almost to the exclusion of others.

In a pond three fourths of a mile south of Nassau Boulevard, the Water Loosestrife, *Decodon verticillatus*, held almost complete possession. In another the Buttonball Bush, *Cephalanthus occidentalis* was supreme. In the well watered pond a little east of the Rocky Hill Road, *Brasenia peltata*, the Water Shield, was the exclusive occupant, or at least the conspicuous one at that season, although in summer, other species would probably be found. In two of the ponds in the new Hillside Park, which were dry on the date of this excursion, *Potamogeton natans* is the conspicuous occupant in summer on one, and *Utricularia vulgaris* in another. Members of the New York Microscopical Society have found a similar exclusiveness in minute animal forms, in some of these ponds, species plentiful in some being absent in others.

It is still possible by dodging the motor highways, to enjoy a pleasant woodland ramble in these Queens woods, but with the extension of roads and building, it will not be many years before they are cut up. It may be hoped that the city will be able to secure several hundred acres more, in addition to the Hillside and Alley Pond parks, and that part of its acquisitions may be kept in a natural state.

## PROCEEDINGS OF THE CLUB

### MEETING OF NOVEMBER 20, 1929

The meeting was called to order by President Denslow at 3:30 P.M. at The New York Botanical Garden. The minutes of the meeting of October 16, held at The New York Botanical Garden, were read and approved.

The following were unanimously elected to membership in the club:

Dr. E. P. Meinecke, Forest Service, Ferry Building, San Francisco, California; Prof. Clyde T. Reed, Texas College of Arts and Industries, Kingsville, Texas; Mr. F. W. Hunnewell, 5 University Hall, Harvard University, Cambridge, Massachusetts; Miss Dorothy Hammond, 418 Central Park West, New York City; Mr. Harold N. Moldenke, The Villa Elsenore,